Subject Index

A

ABRASION RESISTANCE, 8 46 167 223 231 294 331
ABS, 1 51 65 68 76 125 172 229 273
ACCELERATED TEST, 102 124 318 347 355
ACCELEROMETER, 271
ACETAL COPOLYMER, 324 351
ACOUSTIC MEASUREMENT, 237 272
ACRYLIC ACID COPOLYMER, 199
ACRYLIC RESINS, 41 56 62 94 106 156 168 170 175 189 190 201 260 271 309 339
ACTIVATION ENERGY, 153 286
ADDITIVE, 137 303
ADHESION, 13 25 46 94 122 132 151 175 206 234 252 307
ADVANCED COMPOSITE, 49 135
AEROSPACE APPLICATION, 19
AGEING, 42 84 134 149 195 204 236 240 292 305 307 317
AGGRESSIVE MEDIUM, 267
AGRICULTURAL APPLICATION, 318
AIR, 47 245 257 335
ALPHA TRANSITION, 117 240 265
AMORPHOUS, 11 12 47 64 74 166 195 215 217 228 236 237 267 274 277 345
AMPLITUDE, 123 155 178 222 316
ANISOTROPY, 54 169 217 242
ANNEAL, 84 195 229 237 250 264 315 319
ARTIFICIAL HIP, 49
ASPECT RATIO, 277
AUTOMATION, 302
AUTOMOTIVE APPLICATION, 1 89 143 145 176
AXIAL, 197 234

B

BAR, 11 323
BEARING, 46 331
BENDING, 1 3 5 52 242 261 263 266 272 278 295 296 304 317 333
BETA TRANSITION, 117 195 214 240 265 268
BIAXIAL, 6 33 283 344
BIAXIAL EXTENSION, 21
BIAXIAL MODULUS, 7
BIAXIAL STRETCHING, 326
BIAXIALLY ORIENT, 352
BIFURCATION, 105
BIMODAL, 269
BIOMATERIAL, 289
BIREFRINGENCE, 64 79 142 158 162 210 215 228 243 244 246 281
BLEND, 39 44 51 62 91 94 108 115 143 148 151 163 164 172 177 185 186 198 199 211 246 251 256 275 284 319 328
BLOCK COPOLYMER, 179
BLOW MOULDING, 257
BOND STRENGTH, 25 206
BONE CEMENT, 201 260 289
BOUNDARY ELEMENT ANALYSIS, 252
BREAKING STRESS, 352
BREAKING TENSION, 352
BRITTLE FAILURE, 98
BRITTLE, 100 105 106 172 310 320 341
BRITTLE-TO-DUCTILE TRANSITION, 330
BRITTLENESS, 56 100 105 106 172 239 280 310 320 338 341
BUCKLING, 112 128 258
BUILDING APPLICATIONS, 56
BURST STRENGTH, 354
BUTADIENE-STYRENE COPOLYMER, 82

C

CALIBRATION, 2 345
CANTILEVER, 289 299
CAPILLARY RHEOMETRY, 151
CARBON FIBRE-REINFORCED PLASTIC, 9 16 18 19 34 46 49 57 58 63 99 109 122 128 130 135 147 161 169 177 183 223 226 231 238 242 272 274 276
CAUSTICS METHOD, 95 105 106 190 252 266 314
CAVITATION, 76
CELLULAR MATERIAL, 24 25
CHARPY, 48 72 225 271
CIVIL ENGINEERING, 255
CLARITY, 82 91 312
CLOUD POINT, 108
COATING, 6 8 38 307 353 358
COLD DRAW, 284 301
COMMERCIAL INFORMATION, 85 167
COMPATIBILITY, 51 94 105 148 157 164 174 256
COMPLIANCE, 96 127 209 240 277 306 340
COMPOSITE, 5 9 13 14 15 16 17 18 19 24 25 34 45 46 49 52 55 57 58 59 61 63 69 86 87 89 99 109 117 122 128 129 130 132 133 134 135 137 141 143 147 148 149 161 162 169 177 183 196 200 204 205 223 226 231 233 234 235 238 242 274 276 277 289 307 329 331
COMPRESSIBILITY, 193 209
COMPRESSION, 45 58 59 64 65 93 106 109 112 113 135 146 191 194 266 274
COMPRESSION MODULUS, 52 113
COMPRESSION MOULD, 11 32 42 226 323
COMPRESSION PROPERTIES, 10 45 56 58 59 64 65 93 106 109 112 113 128 135 146 191 194 216 258 266 274 356
COMPRESSION STRENGTH, 56 113 258
COMPUTER SIMULATION, 126
COMPUTERISED ANALYSIS, 22 209 296 316 336 346
CONE INDENTER, 334
CONSTITUTIVE EQUATION, 126 221
CONTACT AREA, 94
CONTRACTION, 255

COOLING, 264 315
CORRELATION, 22 37
CORROSION, 335
CRACK GROWTH, 20 32 47 51 52 67 73 75 78 85 90 92 95 98 100 101 104 105 106 124 144 153 160 170 181 187 189 198 220 222 224 231 242 249 267 286 335 336
CRACK INITIATION, 78 95 98 160 187
CRACK LENGTH, 73 189 266
CRACK OPENING DISPLACEMENT, 212
CRACK RESISTANCE, 27 31 152 170 322
CRACK TIP, 75 90 106 144 208 287 317
CRACK VELOCITY, 95 220 245
CRACKING, 9 41 74 90 92 93 95 103 104 120 168 190 208 212 215 222 266 267 299 314 317 322 333
CRAZE TIP, 92 245
CRAZING, 47 67 76 92 107 121 172 190 208 245 267 286 287
CREEP, 20 49 66 68 70 77 89 96 98 102 127 129 130 132 139 167 175 177 193 221 236 240 248 249 267 277 306 324 347 354
CRITICAL LENGTH, 63
CRITICAL PRESSURE, 31
CRITICAL STRESS INTENSITY FACTOR, 95 120 160
CRITICAL TEMPERATURE, 95
CRYSTALLINITY, 47 50 70 81 100 101 118 141 142 148 163 166 172 199 211 215 217 248 264 275 277 286 311 312 315 341
CRYSTALLISATION, 39 97 117 133 163 173 199 202 211 264 300
CURVED, 74 220
CYCLE TIME, 232
CYCLIC LOADING, 204 222 314
CYCLOHEXANEDIMETHANOL COPOLYMER, 228
CYLINDER, 219 232 289

D

DAMAGE, 5 272
DAMPING, 29 55 71 117 159 353
DAMPING COEFFICIENT, 353
DATABASE, 131
DEBONDING, 13 141
DEFECT, 66 70 237 279 291 308
DEFLECTION, 56 233 290 307
DEFORMATION, 22 25 36 44 46 49 64 70 75 76 80 106 107 121 135 148 158 172 215 262 267 285 301 311 317 345
DEGRADATION, 42 84 123 127 134 139 140 142 149 150 166 195 204 236 240 292 305 307 317 318 327
DELAMINATION, 122 272
DENSITY, 32 80 138 145 167 200 213 217 235 343
DENTAL APPLICATION, 252 289
DESIGN, 249 257 279 289 290
DICHROISM, 80 246 319
DIELECTRIC PROPERTIES, 243 328
DIFFERENTIAL SCANNING CALORIMETRY, 75 97 116 117 133 141 142 146 150 163 185 186 199 211 256 264 275 328
DIFFERENTIAL THERMAL ANALYSIS, 75 97 116 117 133 141 142 146 150 163 185 186 199 211 256 264 275 328
DILATOMETRY, 146 177
DIMENSIONAL STABILITY, 23 305
DIPOLE MOMENT, 243
DISC, 266 280 308 310
DISENTANGLEMENT, 66 121 212
DISTRIBUTION FUNCTION, 269
DOMAIN, 94
DOUBLE CANTILEVER BEAM TEST, 122 242
DOUBLE TORSION TEST, 41
DRAW, 215 262 352
DRAW RATIO, 228 256
DROP-WEIGHT, 44 51 109 161 269
DUCTILE, 65 90 105 121 236 301 310 320 323 341
DUCTILE-BRITTLE TRANSITION, 53 66 121 173 283
DUMBBELL, 102 103
DURABILITY, 8 43 49 183 259 261 354
DYNAMIC, 29 79 83 154 167 209 215 328
DYNAMIC LOADING, 149
DYNAMIC MECHANICAL ANALYSIS, 39 79 108 117 130 146 157 163 164 175 178 211 303 328
DYNAMIC MECHANICAL PROPERTIES, 84 111 117 158 159 175 178 179 182 186 195 209 214 251 275 277 325 328
DYNAMIC MODULUS, 28 313

E

EDGE-GATED, 280 308
ELASTIC CONSTANT, 6
ELASTIC DEFORMATION, 22
ELASTIC MODULUS, 22 36 137 148 171 229 237 241 249 268 282 296 311 346 356
ELASTICITY, 22 24 36 55 225 227 258 277 282
ELECTRICAL APPLICATION, 355
ELECTRICAL PROPERTIES, 1 167 336
ELECTROOPTICAL PROPERTIES, 302
ELLIPSOID, 21
ELONGATION, 22 36 40 87 136 199 207 281 327 328 352
ELONGATION AT BREAK, 97 135 140 197 249 250 318 346
ELONGATIONAL FLOW, 151
ENERGY ABSORPTION, 48 176 301
ENERGY DISSIPATION, 103
ENERGY RELEASE RATE, 74 93 120 144
ENGINEERING APPLICATION, 1 20 26 83 89 120 235 255 261 273 278 309
ENGINEERING PLASTIC, 20 26 120 235 261 273
ENGINEERING THERMOPLASTIC, 1 83 89 278 309
ENTANGLEMENT, 178 250 287
ENVIRONMENTAL CRAZING, 190
ENVIRONMENTAL RESISTANCE, 167

ENVIRONMENTAL STRESS CRACKING, 3 27 47 80 92 145 174 245 257 261 267 279 286 335 343 357
EQUIPMENT, 33 52 57 62 79 91 113 114 126 128 143 158 178 261 271 298 302 323 332 334 340 341 343 345 346 356
ESSENTIAL WORK METHOD, 73
ETHYLENE COPOLYMER, 81 124 199 343
ETHYLENE GLYCOL COPOLYMER, 228
ETHYLENE NAPHTHALENE DICARBOXYLATE COPOLYMER, 50
ETHYLENE TEREPHTHALATE COPOLYMER, 50
ETHYLENE-BUTENE COPOLYMER, 80
ETHYLENE-OCTENE COPOLYMER, 47 80
ETHYLENE-VINYL ACETATE COPOLYMER, 81 91
ETHYLENE-VINYL ALCOHOL COPOLYMER, 81
EXOTHERMIC, 94
EXTENSION, 112 123
EXTENSIONAL FLOW, 21
EXTENSOMETER, 192 346 356
EXTRUSION, 151 162 173 188 256 275 312 319

F

FAILURE, 3 41 47 57 63 65 68 69 75 90 98 109 124 135 139 172 174 183 201 219 222 227 230 233 249 258 260 279 304 320 335 347
FALLING DART, 304 323 330
FALLING WEIGHT, 69 271 272 320 337
FATIGUE, 4 5 20 66 67 88 98 99 100 101 129 148 153 156 167 181 183 184 188 198 201 204 208 212 222 224 238 254 260 261 273 299 314 336 341
FIBRE DISTRIBUTION, 204
FIBRE LENGTH, 141 234
FIBRE ORIENTATION, 176 234 335
FIBRE, 52 54 56 97 112 113 136 137 156 184 197 227 250 258 294
FIBRIL, 47 163 187 211 212 245 258 287
FILLER, 15 45 117 132 133 137 200 248 325 327 331
FILM, 29 80 81 107 118 123 158 162 191 215 237 284 318 319 338 342
FINITE ELEMENT ANALYSIS, 74 78 244 252 283 346
FLAMMABILITY, 167 205
FLAW, 66 70 237 279 291 308
FLEXURAL MODULUS, 1 54 233 339
FLEXURAL PROPERTIES, 1 16 23 24 25 49 52 54 56 63 87 99 114 116 122 129 143 147 151 156 159 176 180 187 200 205 226 233 235 239 242 249 287 290 306 327 339 344 356
FLEXURAL STRENGTH, 56 327
FLOW, 91 142 151 192 210 217 229 244 308
FLUOROPOLYMER, 94 237
FORMING, 162
FORMULATION, 82 235 323 338
FRACTOGRAPHY, 153
FRACTURE, 2 4 20 30 31 32 34 41 44 47 53 56 63 65 66 71 73 74 76 85 90 92 95 100 103 120 121 122 130 144 147 152 154 160 169 170 172 173 184 187 188 189 198 208 219 220 226 239 242 249 253 263 264 270 271 274 278 285 289 291 292 293 295 299 304 309 314 317 322 323 329 332 333 352
FRACTURE ENERGY, 63 295 323
FRACTURE MECHANICS, 92 103 120 144 160 169 219 220 239 249 263 264 271 291 292 329 332
FRACTURE SURFACE, 76 101 135 144 151 285 327 335
FRACTURE TOUGHNESS, 4 41 44 154 189 292 309
FREQUENCY, 79 123 178 179 251 328 353
FRICTION, 8 46 83 167 191 196 223 231 321 331
FUEL TANK, 145
FURNITURE, 149
FUSION WELDING, 48

G

GAMMA TRANSITION, 328
GARDEN FURNITURE, 149
GAS PERMEABILITY, 96
GAS PIPE, 48 88 124 254
GAUGE, 128
GEAR, 46
GELATION, 157 288 303
GEOMETRY, 69 279 289
GLASS FIBRE-REINFORCED PLASTIC, 5 46 61 63 69 86 89 134 141 143 176 183 196 204 224 231 233 234 235 249 297 325 329 335
GLASS TRANSITION TEMPERATURE, 39 40 77 91 96 108 121 136 153 166 186 199 209 236 328 338
GLASSY, 126 184 217 283 285 299 314 321 350
GRAPHITE FIBRE-REINFORCED PLASTIC, 19 99 135 223 274 276
GROOVED, 308 310

H

HARDNESS, 37 46 50 60 61 62 81 118 119 138 147 166 213 214 217 247 265 282 288 300 313 315 334 349 350 351 358
HAZE, 82
HDPE, 18 32 41 65 72 84 90 100 104 125 127 145 158 178 188 191 207 211 212 213 214 229 232 248 253 276 312 337 345
HEAT AGEING, 139 183 195
HEAT DISTORTION TEMPERATURE, 147
HEAT RESISTANCE, 1 183 355
HEAT SHRINKAGE, 228
HEAT TREATMENT, 97 101 136 315
HETEROGENEITY, 94
HEXAFLUOROACETONE COPOLYMER, 108

HEXENE COPOLYMER, 124 343
HIGH FREQUENCY, 203
HIGH MODULUS, 56 137 258
HIGH-IMPACT PS, 273 337
HIGH-PERFORMANCE, 113
HOLE, 78 280 310
HOMOGENEITY, 191
HOOP STRAIN, 33
HOSE, 22 36
HOT DRAW, 250
HUMIDITY, 7
HYDROQUINONE COPOLYMER, 146
HYDROSTATIC PRESSURE, 22 36
HYDROXYBENZOIC ACID COPOLYMER, 50 97 146
HYDROXYNAPHTHOIC ACID COPOLYMER, 97
HYSTERESIS, 1 68 70 99 188

I

IMPACT MODIFIER, 82 235 323
IMPACT PROPERTIES, 2 5 15 19 26 32 41 44 48 51 65 69 71 72 74 76 82 85 86 87 93 109 125 131 141 143 144 147 149 150 154 155 161 171 172 183 184 200 203 218 219 225 230 235 239 241 242 249 253 263 264 268 269 270 271 272 273 274 280 285 293 295 297 304 308 310 313 316 317 320 323 326 327 330 332 337 338 340 341
IMPACT RESISTANCE, 131 161 308 337
IMPACT STRENGTH, 26 141 143 155 172 184 200 235 239 268 273 327 330 348
IMPURITY, 327
INDENTATION, 37 81 86 214 300 334 350 358
INERTIA, 71
INHOMOGENEOUS, 217 262 299
INJECTION MOULD, 11 12 42 54 78 84 150 171 176 213 217 224 229 232 233 234 278 280 305 308 310 323
INTERFACIAL ADHESION, 122 151 234
INTERFACIAL PROPERTIES, 9 13 132 248 319
INTERFACIAL SHEAR STRENGTH, 18
INTERFEROMETRY, 245 252 287
INTERLAMINAR, 34 274
INTERMOLECULAR STRUCTURE, 281
INTERNAL FRICTION, 77 321
INTERNAL PRESSURE, 22 36 354
INTERNAL STRESS, 126 180 232 298 307 344
INTERPHASE, 63
INTRAMOLECULAR MOTION, 40
ISOPHTHALIC ACID COPOLYMER, 146
ISOTACTIC, 150 216 264 265 275
ISOTHERMAL, 64 91 97 178 191 195 207
ISOTROPY, 99
IZOD, 44
IZOD FRACTURE, 323 348

J

J-INTEGRAL, 73 90 187
JOINT, 48

K

KINETIC, 39 126 154 208 267 286 331

L

LABORATORY TEST, 331
LAMINATE, 19 57 58 59 99 105 128 135 238 307 329
LAP SHEAR JOINT, 29
LAY-UP, 242
LDPE, 199 214 284 312
LIGHT SCATTERING, 91 114 157 251 312
LIGHT TRANSMISSION, 163 185 211 284 312
LINEAR ELASTIC FRACTURE MECHANICS, 32 219 242 249 263 314
LIQUID CRYSTAL, 50 54 97 146 169 185 186 258 261
LLDPE, 37 80 140 256 275 312 328
LOAD DEFLECTION, 25 32
LOAD-BEARING, 247 304
LOADING, 41 51 56 68 70 71 83 99 112 127 129 149 165 183 212 217 219 247 255 263
LONG-TERM, 49 102 127 129 183 240 277 290 324 355
LOSS FACTOR, 28 209
LOSS MODULUS, 179 195 214 251
LOSS TANGENT, 28 179 195 209 214 251
LYOTROPIC, 258

M

MATERIALS SELECTION, 1 109 331
MATHEMATICAL MODEL, 7 13 14 21 32 43 46 50 66 73 77 78 86 92 100 103 112 121 127 129 139 142 169 182 194 195 201 203 204 207 208 219 220 221 222 225 227 231 233 234 239 240 242 249 255 258 262 263 266 267 277 286 296
MDPE, 32 33 48 80 104
MECHANICAL PART, 10 89 331
MECHANICAL RELAXATION, 84 89 214 246 248
MECHANISM, 41 47 63 66 67 69 87 136 172 184 187 212 223 312 321 347
MEDICAL APPLICATION, 42 49 201 206 260 289
MELT FLOW, 53 144 182 244
MELTING, 97 117 163 211 303
MELTING POINT, 39 54 150 178 199 248 328
MEMORY EFFECT, 195
METAL, 46 83 137 138 231 307 355
METHACRYLATE COPOLYMER, 82
METHYL METHACRYLATE COPOLYMER, 94
METHYL PENTENE COPOLYMER, 124
MICROCRACK, 168
MICROFIBRILLAR, 112
MICROHARDNESS, 37 50 60 61 62 81 118 119 166 214 217 265 315 334 351
MICROINDENTATION, 118 130

MICROSTRUCTURE, 100 101 155 223 231 335
MINERAL FILLER, 239 327
MISCIBILITY, 91 94 108 163 211 246
MODULUS, 7 24 28 31 68 128 131 135 137 175 197 216 227 235 277 282 301 356
MOISTURE ABSORPTION, 136
MOLECULAR STRUCTURE, 39 50 54 67 80 133 142 151 163 178 184 185 186 211 236 250 251 256 275 284 328 356
MOLECULAR WEIGHT, 53 66 67 80 83 100 121 144 145 150 171 173 202 209 250 281 285 292 300 315 331 343
MONITORING, 338
MONOFILAMENT, 151
MORPHOLOGICAL PROPERTIES, 50 76 82 94 100 108 112 124 141 146 151 155 157 163 164 172 173 188 196 202 211 212 215 224 226 248 251 262 264 265 284 285 293 319 341
MOULDED-IN, 23

N

NANOCOMPOSITE, 45
NECKING, 90 115 121 165 207 237 301
NEEDLE PUNCHING, 255
NON-DESTRUCTIVE TESTING, 55 81 167 302 315
NON-LINEAR, 21 158 201 215 221 306 325
NOTCH, 47 72 73 74 76 78 90 122 165 212 219 263 268 278 279 280 285 295 304 308 310 314 317 323 335 340

O

OPTICAL INTERFEROMETRY, 245 287
OPTICAL PROPERTIES, 14 42 45 79 82 91 114 115 148 158 162 167 185 186 190 210 215 228 243 244 252 281 284 302 312 319 326 342
ORIENTATION, 21 139 148 169 187 223 229 237 242 246 258 319 326 352
ORTHORHOMBIC, 250
ORTHOTROPIC, 6
OXIDATION, 116

P

PACKAGING, 82
PACKAGING CONTAINER, 257
PARALLEL PLATE, 91
PEEL STRENGTH, 175
PENDULUM TEST, 72 143
PENETRATION, 259
PERMEABILITY, 167
PHASE SEPARATION, 91 157 163 177 211 251
PHASE TRANSITION, 146 157 185 186 265
PHENOXY RESIN, 163 309
PHOTODEGRADATION, 327
PHOTOELASTICITY, 252 344
PHOTOGRAPHIC APPLICATION, 65 69 105
PIPE, 32 33 88 98 116 222 254 279 290 291 292 347
PLANAR, 21 191
PLASTICISATION, 47 60
PLASTICISER, 157 303 318 338
PLATEAU MODULUS, 178
POISSON'S RATIO, 6 7 14 55
POLY-ALPHA-METHYLSTYRENE 114
POLY-P-PHENYLENE BENZOBISTHIAZOLE, 258
POLY-P-PHENYLENE TEREPHTHALAMIDE, 258
POLYACETAL, 65 137 154 203 235 259 261 333
POLYACRYLATE, 91 108
POLYACRYLONITRILE, 136 179
POLYAMIDE, 2 26 43 51 70 73 74 77 83 154 176 183 184 200 204 227 229 234 249 261 274 286 325 341
POLYAMIDE-11, 77
POLYAMIDE-6, 51 65 156 200 204 284 286 297 305 312
POLYAMIDE-6,6, 2 46 65 83 89 151 154 177 224 276 286 297 333 341 345
POLYAMIDOBENZIMIDAZOLE, 70
POLYARYLATE, 54 183
POLYBENZOXAZOLE, 258
POLYBUTENE, 21 116 312 345
POLYBUTYL ACRYLATE, 91
POLYBUTYLENE TEREPHTHALATE, 65 127 143 152 177 183 234 235
POLYBUTYLENE, 116
POLYCAPROLACTONE, 163 211
POLYCARBONATE, 2 20 53 64 65 68 75 105 123 126 127 143 154 165 171 174 177 184 192 217 225 235 236 249 273 276 280 283 295 299 305 309 312 319 321 323 325 341 342 345 350 355
POLYCHLOROTRIFLUOROETHYLENE, 110
POLYCYANOACRYLATE, 206
POLYDIMETHYLPHENYLENE OXIDE, 198
POLYETHER, 34 128 163 272
POLYETHERETHERKETONE, 19 34 49 65 71 75 99 109 118 122 128 135 161 166 183 223 226 231 238 242 261 272 277
POLYETHERIMIDE, 236 309
POLYETHERKETONE, 75
POLYETHERSULPHONE, 65 66 89 121 183 230 261 278 280 308 310 317
POLYETHYLENE, 3 4 15 18 32 33 41 47 48 56 65 70 72 80 83 84 88 90 91 93 98 100 102 104 113 115 116 124 125 127 138 145 158 178 184 187 188 191 199 207 211 212 213 214 229 232 248 250 253 254 257 258 262 276 282 284 291 294 300 305 311 312 318 319 328 331 337 343 345
POLYETHYLENE OXIDE, 39 45 178
POLYETHYLENE TEREPHTHALATE, 65 166 207 215 228 233 247 267 276 284 335 352
POLYIMIDE, 7 40 274 331
POLYISOBUTYL CYANOACRYLATE, 206

POLYKETONE, 34 128 272
POLYMERIC STABILISER, 179
POLYMETHYL METHACRYLATE, 2 20 41 62 64 67 69 71 72 78 79 85 92 94 95 96 105 106 125 127 139 153 154 166 168 170 180 181 189 190 193 194 195 208 209 217 220 240 241 245 246 249 253 260 266 270 271 276 287 289 293 295 299 312 314 324 325 333 334 337 344 345
POLYMETHYLENE OXIDE, 345
POLYMORPHISM, 50 265
POLYOCTENAMER, 119
POLYOLEFIN, 33 41 44 60 62 91 93 94 102 104 107 114 138 162 184 187 191 196 214
POLYOXYMETHYLENE, 71 83 101 217 305 345
POLYOXYPROPYLENE, 281
POLYPARAPHENYLENE BENZOBISOXAZOLE, 197
POLYPARAPHENYLENE BENZOBISTHIAZOLE, 197
POLYPHENYLENE OXIDE, 65 177
POLYPHENYLENE SULPHIDE, 89 109 147 161 183 261
POLYPHENYLENE TEREPHTHALAMIDE, 70 258
POLYPROPYLENE, 1 4 60 65 69 87 117 127 132 133 142 149 150 155 162 173 182 196 202 205 221 229 232 234 247 256 263 264 265 275 294 305 312 313 324 325 327 328 333 334 339 345 351 352
POLYPROPYLENE OXIDE, 281
POLYSTYRENE, 62 84 94 96 107 114 144 164 184 198 213 216 217 229 244 251 253 273 276 285 299 305 312 337 341 348
POLYSULPHONE, 49 58 276 278 280 299 309
POLYTETRAFLUOROETHYLENE, 10 46 147 247 331
POLYURETHANE, 125 143
POLYVINYL ACETATE, 166 209
POLYVINYL ALCOHOL, 39
POLYVINYL CHLORIDE, 2 23 42 65 82 115 127 134 157 164 172 217 219 222 249 263 268 288 290 292 296 298 303 307 315 318 323 324 330 333 334 336 338 339 345 349 351
POLYVINYL ESTER, 5 9 86
POLYVINYL METHYL ETHER, 251
POLYVINYLIDENE FLUORIDE, 94 110 183 246
POROSITY, 284
POWER LAW, 142 187
PRE-STRAIN, 27
PRECISION, 328
PRESSURE, 7 22 31 36 96 222 245 257
PRESSURE DEPENDENCE, 155
PRESSURE PIPE, 30 31 32 222 291
PRINTED CIRCUIT, 8
PROFILE, 338
PROPYLENE COPOLYMER, 102 239
PROSTHESIS, 260
PROTOTYPE, 49
PULL-OUT, 18 141 196
PULSED, 69
PUNCTURE, 283 301

Q

QUALITY CONTROL, 3 58 217 279 302 326 328
QUASI-ISOTROPIC, 99
QUASI-STATIC, 95 208 227 242
QUENCH, 166 184 196 216 315

R

REACTION INJECTION MOULD, 200
REBOUND, 340
RECOVERY, 193 282 298
RECRYSTALLISATION, 300
REFLECTIVITY, 45
REFRACTIVE INDEX, 45 82 168 181
REGRESSION ANALYSIS, 259
REPRODUCIBILITY, 34
RESIDUAL SOLVENT, 18
RESIDUAL STRAIN, 33 162 302
RESIDUAL STRENGTH, 129
RESIDUAL STRESS, 7 184 299
RESILIENCE, 22 36
RESONANCE, 316
RHEOLOGICAL PROPERTIES, 21 43 91 142 178 179 182 191 210 244 248 308
RHEOOPTICAL PROPERTIES, 91 158
RIGID, 24 25 42 54 197 219 222 288 315 334 336
ROCKWELL HARDNESS, 147
ROOM TEMPERATURE, 20 23 65 83 139 175 207 219 240 263 310 311 315 337
ROUGHNESS, 83 223 312
ROUND ROBIN TEST, 34
RUPTURE, 66 130 139

S

SAMPLE PREPARATION, 6 32 59
SAMPLING, 6 32 59 309
SANDWICH STRUCTURE, 105
SATURATED POLYESTER, 43 143 151 156 186 243 258
SCANNING ELECTRON MICROSCOPY, 53 93 126 130 135 138 141 144 147 151 164 172 188 212 213 223 224 226 231 248 284 285 312 319 327 335
SELF-LUBRICATING, 231
SEMI-CRYSTALLINE, 163 166 184 211 274 277 311
SERVICE LIFE, 131 222 274 290 292 347 354 355
SHAPE FACTOR, 245 263 289 337
SHEAR, 21 55 75 76 91 106 112 121 126 130 165 175 191 193 246 262 345
SHEAR DEFORMATION, 29
SHEAR MODULUS, 22 36 159 200 249 258 328 356
SHEAR PROPERTIES, 17 18 29 56 126 156 159 196 210 276
SHEAR STRAIN, 159
SHEAR STRENGTH, 56 196
SHEAR STRESS, 159
SHEET, 23 27 32 90 104 162 165 249 262 338
SHORT ROD TEST, 189 299
SHORT-TERM, 127 240 324
SHRINKAGE, 11 12 256
SKIN-CORE MORPHOLOGY, 217

SLIDING, 83 223 231
SLIP, 70 165
SMALL SCALE, 31
SOFTNESS, 256
SONIC MODULUS, 197
SPHERULITIC, 101 141 163 172 211 264
STANDARD, 11 12 17 23 24 25 27 59 111 116 120 145 149 159 160 167 175 291 333 343 346 357
STATIC, 83 123 277
STATIC LOADING, 149
STATISTICAL ANALYSIS, 335
STIFFNESS, 63 99 129 159 176 200 239 287 290
STORAGE MODULUS, 123 179 251 328
STRAIN, 21 23 47 57 65 72 123 162 177 178 191 207 212 221 227 274 281 289 301 306 334 345 357
STRAIN ENERGY, 219 220 242 264
STRAIN ENERGY RELEASE RATE, 74 93 144
STRAIN GAUGE, 1 33 93 356
STRAIN RATE, 64 65 68 75 121 139 173 187 194 221 228 311 323 339 345 352 356
STRAIN-HARDENING, 64 301
STRAIN-OPTICAL COEFFICIENT, 79
STRAIN-SOFTENING, 107
STRENGTH, 16 24 58 59 61 63 102 176 196 235 239 340 352
STRESS, 20 22 36 63 67 72 78 92 93 100 129 139 158 165 191 201 204 208 212 222 228 245 249 267 298 306 317 323 324 331 335 343 346 347 352 357
STRESS ANALYSIS, 1 252 347
STRESS CONCENTRATION, 9 78 310
STRESS CRACKING, 3 27 35 252 343
STRESS DISTRIBUTION, 106 190 245 347
STRESS INTENSITY, 244 286
STRESS INTENSITY FACTOR, 20 71 93 106 189 219 242 266 314 335 352
STRESS ORIENTATION, 229
STRESS RELAXATION, 9 123 167 216 221 248 325
STRESS WHITENING, 76 115
STRESS-OPTICAL COEFFICIENT, 79 228 281
STRESS-STRAIN PROPERTIES, 6 7 10 13 14 22 32 33 43 64 65 68 75 81 84 99 113 115 132 165 167 175 181 184 188 192 193 210 212 221 229 238 241 246 247 248 254 255 270 298 301 302 304 311 324 326 344 345 346 347 352 356 357
STRETCH, 123 228 237 284
STYRENE COPOLYMER, 94
SURFACE DEGRADATION, 149
SURFACE FINISH, 46 83 223
SURFACE PROPERTIES, 312 326
SURFACE STRUCTURE, 101
SURGICAL APPLICATION, 42 49 201 206 260 289
SWELLING, 147 158 281

T

TAN DELTA, 178
TANGENTIAL, 22
TEAR, 90
TEMPERATURE, 63 107 167 179 180 191 202 228 232 251 257 268 281 303 306 311 328 343 353
TEMPERATURE CONTROL, 330
TEMPERATURE DEPENDENCE, 64 70 75 84 95 97 118 121 123 129 166 185 194 198 211 214 221 275 286 287 307 313 328 353 356
TEMPERATURE GRADIENT, 265
TENACITY, 136
TENSILE MODULUS, 40 52 79 97 136 151 197 250 275 328
TENSILE PROPERTIES, 10 22 36 38 40 51 52 56 57 79 87 94 97 102 110 111 115 116 121 123 124 127 133 136 137 140 142 147 150 151 156 164 169 171 173 184 192 197 199 201 202 204 206 207 226 227 232 234 235 237 248 249 250 255 256 259 260 270 275 278 294 295 301 311 318 321 327 328 346 352
TENSILE STRAIN, 352
TENSILE STRENGTH, 38 40 56 57 94 97 140 151 184 197 204 234 249 250 259 318 346
TENSILE STRESS, 69 355 356
TENSILE YIELD, 110
TENSION, 47 48 59 68 70 73 78 111 129 135 165 172 175 177 193 283 299 309 352
TEREPHTHALATE COPOLYMER, 228
TERT-BUTYLSTYRENE COPOLYMER, 179
TEST SPECIMEN, 11 12 279 352
TETRAFLUOROETHYLENE COPOLYMER, 237
THEORY, 1 2 4 6 7 10 13 14 15 16 21 22 26 32 36 43 50 52 53 55 63 66 73 77 78 82 84 85 86 87 88 89 92 94 99 100 103 106 112 115 121 124 125 127 128 129 132 133 135 137 139 152 153 154 167 168 169 181 182 185 186 188 191 192 194 195 196 199 201 203 204 207 208 210 213 216 221 222 224 225 226 227 230 232 233 238 239 241 243 244 246 247 248 253 254 255 258 260 263 267 269 270 301 306 332
THERMAL ANALYSIS, 79 146 157 178 328
THERMAL CRACKING, 9
THERMAL DEGRADATION, 75 118 139 183 195 327
THERMAL EXPANSION, 1 166
THERMAL HISTORY, 100 146 195 264 283
THERMAL PROPERTIES, 39 54 96 97 116 117 119 133 150 163 166 167 183 186 199 261 268 283 303 328 338 355
THERMAL RELAXATION, 178
THERMAL SHOCK RESISTANCE, 355
THERMAL SHOCK TREATMENT, 261
THERMAL SHRINKAGE, 228
THERMAL STABILITY, 1 183
THERMAL TRANSITION, 117 119

THERMO-ACOUSTIC EMISSION, 9
THERMODYNAMIC, 185 186
THERMOELASTIC, 243 281
THERMOFORMING, 162
THERMOGRAPHY, 103
THERMOMECHANICAL PROPERTIES, 63 103
THERMOREVERSIBLE, 157
THERMOTROPIC, 54 97 146 151 185 258
THICKNESS, 8 32 34 72 90 122 168 230 233 238 253 263 280 310 337 343 345
THIN FILM, 6 7 122 138 173 202
THRESHOLD VALUE, 20 222 267
TIME DEPENDENCE, 37 44 47 96 127 193 195 217 221 223 267 268 305 323 327 328
TIME TEMPERATURE SUPERPOSITION PRINCIPLE, 236
TOLERANCE, 59
TORSION, 31 41 193 220 261 322
TORSION PENDULUM, 159
TOUGHNESS, 2 20 56 71 72 73 74 103 141 144 172 183 189 198 203 239 249 274 285 289 291 292 299 309 317 329 348
TRACTION, 171
TRANSITION TEMPERATURE, 166 250 283 328
TRANSITION, 157 166 250 283 328
TRANSPARENCY, 82 91 163 185 211 284 298 302 312 326
TRANSVERSE PROPERTIES, 59
TRIFLUOROETHYLENE COPOLYMER, 246
TUBING, 219
TUBULAR, 233 312
TURBIDITY, 91 251
TWO-DIMENSIONAL, 223

U

ULTRASONIC PROPERTIES, 148
ULTRASOUND ANALYSIS, 197
UNDRAWN FILM, 215
UNIAXIAL COMPRESSION, 221
UNIAXIAL EXTENSION, 21 139
UNIAXIAL TENSION, 201 298 345
UNIAXIAL, 237
UNIAXIALLY ORIENTED, 242 258
UNIDIRECTIONAL, 34 59 128 223 301
UNPLASTICISED, 288 292 339 351
UNSATURATED POLYESTER, 353

V

VEHICLE TRIM, 1
VEHICLE, 176
VELOCITY, 71 83 109 194 231 323
VIBRATION, 55
VIBRATION DAMPING, 29
VIBRATION WELDING, 155
VICKERS HARDNESS, 61 62 138 217 315
VINYL ACETATE COPOLYMER, 81
VINYL ALCOHOL COPOLYMER, 81
VINYL PYRIDINE COPOLYMER, 179
VINYLIDENE FLUORIDE COPOLYMER, 108 237 246
VISCOELASTIC PROPERTIES, 21 28 37 44 71 103 127 129 157 158 175 178 179 188 193 203 215 221 229 251 277 340
VOLUME CHANGE, 11 12
VOLUME DILATION, 177
VOLUME FRACTION, 56 141 179 200 204 206 234 245

W

WALL THICKNESS, 200 233
WARPAGE, 235
WEAR, 8 46 167 223 231 331
WEATHERING, 134 140 259 261 305 307 318 327 338 342
WIDE-ANGLE, 70 117 142 312

Y

YIELD, 301 321 346 352
YIELD STRENGTH, 194
YIELD STRESS, 68 81 110 113 171 320 352 356
YOUNG'S MODULUS, 22 36 55 81 137 148 171 192 227 229 237 241 249 268 282 296 311 328 340 346 356